George's PINK PAGES January 2000

January Projects

I can hear some beeHAVERS saying or thinking " George, are you nuts? It is winter and cold and my bees have no thoughts of spring and nectar gathering yet!" Then there are some beekeepers that are too lazy to think about any bee work in January or even February, and their bees might be dead and they don't know that. So what has to be done in January?

INSPECT YOUR BEES! There is going to be 1 or 2 days that the early afternoon temperature is going to get up to 50 degrees or above and sunny. TAKE OFF FROM WORK and inspect your bees. "Inspect" means OPENING UP THE HIVE and looking in the center of the brood chamber for BROOD, or the queen, FOOD, DISEASE and adult bee population, large or small? The two most important things you want to find out are: Is the queen alive, and does the colony have plenty of food. Year after year, I have had people tell me that they "knew" their bees were alive because they saw bees flying in and out of their colony on warm days, but there were no bees there when they finally opened on a warm April weekend. What they saw flying in and out on warm days in January and February were ROBBER bees, because their bees were DEAD. Unless you have X-RAY eyes, your bees can NOT be inspected by observing them from the outside of their colony!

Brood rearing normally starts in January in our Maryland area in spite of night temperatures below freezing or even down near zero. Raising brood requires a tremendous amount of food, and more bees in Maryland starve to death in late February and March than any other month. Hence, carefully check the colony's food supply when you open it in January and feed 1:1 sugar syrup if needed.

GET THE QUEEN LAYING! With our Maryland nectar flow primarily yielding in late April and all of May, you MUST realize that the bees that are going to gather this nectar have to emerged from their wax cell by about April 10th, which means that the queen had to lay the their egg about March 20th. Don't lose sight of the fact that there has to be a lot of bees around in early March to warm the brood nest and feed the brood. One MUST realize that if you are going to get a big crop from our very early nectar yield in Maryland, the queen has to be laying pretty well in February and March. Queens are stimulated to lay eggs by the collection of pollen and nectar. 1:1 sugar syrup is artificial nectar, or a substitute for real nectar.

If you deem yourself a skilled beekeeper, have a YOUNG queen in the colony, always AHEAD of your bees, and skilled in swarm prevention, then do as I do and start feeding 1:1 sugar syrup in late January or early February. However, in any event, get your queen going by starting 1:1 feeding in March.

REVERSING: It is well known and almost totally accepted that Reversing of brood chambers is one of the most helpful of swarm prevention techniques; and if your bees swarm in April or early May in Maryland, you have basically lost your honey crop for an entire year. However, many, many people seem to have lots of problems figuring out just how to reverse, when, and how often; so I am going to try to explain it in writing (it is easy if we were inspecting one of my colonies together and then I could show you and explain as we did it)

It has been well proven that one of the strongest reasons for swarming is CONGESTION IN THE BROOD CHAMBER - Note, I said BROOD chamber, and nothing about super space. Let me stop here and make you think. It is late January, February, or March, the weather is cold or chilly, but the brood must be kept at 91-96 degrees to stay alive, bees like to keep nectar close to the brood for easier feeding, so the brood area is highly congested with lots of nurse bees feeding brood and warming the brood nest. Meanwhile, the old foragers are bringing in needed pollen from skunk cabbage, maples, and alders. If there is no 1:1 syrup, but just honey, bees have to fly out and find water to dilute the honey to nectar consistency for brood food. This whole scene is just a mess of congestion, which is the number ONE cause of swarming.

Back in November, the worker bees began storing honey near the top of the colony and driving the queen down to the bottom hive body for any brood laying that she might do; and hence initial clustering of the bees as the weather moved down into the 40's or 30's was around the queen on the frames of the lowest hive body. Just imagine a cluster of packed bees about the size of a basketball or soccer ball enveloping most of frames #5 & #6, some of frames #4 & #7, and smaller portions of frames #3 & #8. As the winter progresses, the bees slowly move UP (not sideways) and by January, they have consumed most of the stores in the lower frames and are now starting to eat the stores in the frames of the top hive body (regardless of whether you are using 2 deep bodies for brood chambers or 3 Illinois Bodies (like I use) for brood chambers.

It is Nature's Way or Bee Behavior that bees like to move UPWARDS, and more or less have to be FORCED DOWNWARDS. Hence, when the space in the upper frames is filled up with brood or honey, even though there is plenty of empty space in lower frames, the bees and particularly the queen resist moving their brood rearing to the lower frames. Hence, the worker bees either stop the queen from egg laying, or even prepare to swarm. Therefore, it becomes the BEEKEEPER'S task to reposition the frames so that there is always empty laying space ABOVE where the queen is laying. However, the position of the frames that contain brood is VITALLY IMPORTANT before you start REpositioning those frames.

To aid you in trying to picture brood location in a colony, I want you to think of a big round CLOCK in the place of All (either 2 or 3) of Frames #5, where the number 12 is close to the inner cover and the number 6 is close to bottom board. Draw an imaginary line through the 3 & 9, and that indicate the space between the bottom hive and the top hive if you are using 2 deep bodies, or the center of the middle body frames if you are using 3 Illinois bodies. It is most important that you understand where this 3 to 9 imaginary line is for my written explanation of REVERSING.

Upon examination, if about 80% of the brood is in UPPER frames and the remaining 20% brood, probably capped, is in the LOWER frames, REVERSE the positions of the top body with the bottom body. You might have to do it again in just 7 days or maybe not for 17 days depending on the weather, the age of the queen, the size of the frame, the race of the bee, and a dozen other reasons. However, you open the colony, examine the location of the brood as well as the empty space, and decide whether to reverse bodies that day or wait 2-3 days. Obviously the beeHAVER won't do as well as a knowledgeable beeKEEPER.

I start reversing in late January (late February might be best for most readers) and continue it until the nectar flow is strong,

usually about May 1st. I usually make about 4 or 5 reversals of a colony in that period of late January to May; but many beekeepers using 2 deep bodies as brood chambers get by with just 2 reversals. However, since I don't want to contend with any swarming problems, I might reverse more often than someone else.

Reversing too soon is the important danger to the technique, because much of the new brood will be killed by being chilled because it is away from the heat of the bee cluster. Think of the imaginary clock: Brood is located in between the lines of 10 - 2 and 7 - 5, and you reverse the bodies. The frames with the brood up to 10-2 where the queen is laying is now in the bottom body and the bees are clustered about her to keep her warm, but the frame with brood that was down to the 7-5 line is now in the upper body and that brood is close to the inner cover and away from the cluster of bees, so it dies of chill. This mistake is referred to as SPLITTING THE BROOD, and you should remember it. Using the example just given, do not reverse until the brood is located between lines of 11-1 and 8-4 or even better when all the brood is in an upper frame and NO brood in the lower frame.

REVERSING is one of the most valuable techniques used in beekeeping not only helping to prevent swarming, but to aid your bees in building a larger population to enhance your honey yield. However, it is like learning to drive, it takes practice; but I strongly urge everyone who really wants to find the real JOYS OF BEEKEEPING to learn and perform the reversing procedure.